

1966 MAR 17 23 25 Z

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**TOP SECRET.**

CITE NPIC 6696.

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**SUBJECT: CAMERA INFORMATION FOR MISSION 1030-1.**

1. THE MISSION UTILIZED TWO PAN CAMERAS, FOUR HORIZON CAMERAS, A STELLAR CAMERA, AND AN INDEX CAMERA.

18 MAR 1966

## 2. CAMERA DATA

A.

MAIN UNITS	FORWARD	AFT	STAR HOR	PORT HOR
FOCAL LENGTHS (MM)	609.602	609.602	FWD 55.00 AFT 49.90	FWD 55.00 AFT 55.00
FILTER (WRATTEN NO.)	25	21	25	25
APERTURE	F3.5	F3.5	F8.0	F6.3
SLIT WIDTH (IN.)				
EXPOSURE (SEC.)	.275	.175	1/100	1/100
FILM	3404	3404	3404	3404
RESOLUTION (L/MM)	190	200	NA	NA

B.

Advance copy  
Sanitized

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**TOP SECRET**

**GROUP 1**  
Excluded from automatic  
downgrading and  
declassification

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S/I UNITS	STELLAR	INDEX
FOCAL LENGTH (MM) PART 1	83.9987	38.3636
PART 2	84.1555	38.3305
FILTER (WRATTEN NO.)	NONE	21
APERTURE	F1.8	F4.5
EXPOSURE (SEC.)	2.0	1/500
FILM	3401	3400
RESOLUTION (L/MM) PART 1		70
PART 2		70
UNIT NUMBER PART 1	D94/100/107	
PART 2	D82/195/102	

## 3. LENS DISTORTION (PIN CUSHION) MM

A. MAIN UNITS	3	2	1	0	359	358	357
FWD UNIT	.001	.000	.000	.000	.000	.000	.001
AFT UNIT	.002	.001	.000	.000	.000	.001	.004

B. HORIZON CAMERAS (MM)	FWD		AFT	
	PORT	STAR	PORT	STAR
(RADIAL) 10 DEGREES	.020	.010	.040	.010
20 DEGREES	.070	.050	.080	.030
(TANGENTIAL) MAX VECTOR	.025	.020	.025	.030

## 4. CAMERA ANGLES

	DEG.	MIN.
A. ANGLE BETWEEN PAN CAMERAS	29	45.54
B. DEPRESSION ANGLE BETWEEN HORIZON FWD STAR	15	39
AND PAN CAMERAS	FWD PORT 16	01

1

-3-

AFT STAR	15	56
AFT PORT	15	11
C. ANGLE BETWEEN STELLAR AND INDEX PART 1	90	00.1
CAMERAS PART 2	89	59.7

## 5. TIMING MARKS

FREQUENCY MARKS WILL APPEAR ON THE FILM AT A RATE OF 200 CYCLES PER SECOND.

## 6. IMAGE MOTION COMPENSATION DATA (CYCLE RATE (CPS), GROUND ANGULAR VELOCITY (GAV), AND PASSES WHERE USED).

REF.	LEVEL	AMPL.	LEVEL	PASSES		
NO.	CPS.	GAV.	NO.	CPS.	GAV.	
8	.3215	.0291	3	.1298	.0117	1D1 THRU 16D1
7	.3377	.0305	3	.1298	.0117	20D1 THRU 79D1

## 7. PROGRAM TIME DATA

CAMERA ON TIME	PROGRAM ON TIME	PROGRAM
(ZULU TIME)	UP RAMP	DURATION
PASS DAY HR MIN SEC	SEC	SEC
1D1 9 23 25 13	946	70
4D1 10 04 03 08	1298	159
5D1 10 05 27 30	925	166
5D2 10 05 33 44	1299	135
5D3 10 05 37 35	1530	52
6D1 10 06 57 56	912	62

-4-

6D2 10 07 03 19	1235	139
6D3 10 07 07 38	1494	52
6D4 10 07 11 45	1741	155
7D1 10 08 32 32	1148	321
8D1 10 10 01 23	1041	179
8D2 10 10 06 09	1326	52
9AE 10 11 15 49	73	49
14D1 10 19 13 32	1546	48
14D2 10 19 27 43	2397	73
16D1 10 22 16 32	1650	38
20D1 11 04 10 14	1064	214
20D2 11 04 15 06	1356	50
21D1 11 05 46 48	1421	249
23D1 11 08 41 20	1020	246
23D2 11 08 48 52	1472	110
24D1 11 10 14 17	1162	139
25D1 11 11 47 12	1301	177
30D1 11 19 31 35	1983	55
30D2 11 19 36 27	2275	102
31D1 11 20 56 18	1630	62
33D1 11 23 47 10	1011	139
35M1 12 02 45 27	837	170

1

-5-

36D1 12 04 17 09	903	234
36D2 12 04 24 29	1342	50
36D3 12 04 26 21	1455	64
37D1 12 05 48 22	940	237
37D2 12 06 00 51	1689	152
39D1 12 08 50 57	1023	101
39D2 12 08 56 55	1381	159
47D1 12 21 05 08	1597	48
49D1 12 23 58 50	1149	74
50D1 13 01 28 27	1092	166
52D1 13 04 27 37	976	158
52D2 13 04 35 40	1460	143
53D1 13 05 57 37	942	58
53D2 13 05 59 31	1056	294
53D3 13 06 11 41	1787	151
54D1 13 07 35 40	1392	49
54D2 13 07 38 43	1575	200
55D1 13 09 00 43	1060	192
56D1 13 10 47 22	2026	144
58D1 13 13 44 55	1813	182
61D1 13 18 19 57	2014	77
61D2 13 18 27 11	2447	67
63D1 13 21 15 11	1663	46

-6-

66D1 14 01 34 15	908	520
68D1 14 04 35 25	914	79
68D2 14 04 37 33	1043	148
68D3 14 04 43 15	1384	129
69D1 14 06 07 02	978	58
69D2 14 06 08 56	1093	138
69D3 14 06 21 05	1822	152
78D1 14 19 53 59	1714	62
79D1 14 21 23 08	1632	38

NOTE: DATA IS THE SAME FOR BOTH THE MASTER (FWD) AND SLAVE (AFT) UNITS.

# 8. TIME CORRELATION (MILLISECONDS)

PASS	CLOCK TIME	SYSTEM TIME	DIFFERENCE
9	142812.315	40626.1454	----
16	182449.026	80262.8407	.016
24	224359.051	35772.8496	.016
31	264034.498	75448.2818	.015
40	311388.404	36402.1707	.017
47	350997.983	76011.7358	.014
56	398389.821	37003.5578	.016
63	437985.832	76599.5559	.013
72	485316.777	37530.4861	.015
79	524962.958	77176.6551	.012

NOTE: ALL "DIFFERENCE" VALUES ARE PLUS.

T O P S E C R E T

/END OF MESSAGE/

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